UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/858,189	05/14/2001	Geoffrey B. Rhoads	P0376	9322

23735   7590   12/19/2003

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EXAMINER
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ART UNIT	PAPER NUMBER
2135	6

DATE MAILED: 12/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.		Applicant(s)	
Office Action Summary		09/858,189		RHOADS ET AL.	
		Examiner		**Art Unit**	
		Hosuk Song		2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *14 May 2001*.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-14* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-14* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *5* .   6) ☐ Other: .

U.S. Patent and Trademark Office

PTOL-326 (Rev. 11-03)   **Office Action Summary**   Part of Paper No. 6

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1.   Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over McAuliffe

et al.(US 5,838,790)in view of Iwamura(US 6,425,081).

Claim 1: McAuliffe's patent teaches obtaining and checking the integrity of the fingerprint

data in (col.8,lines 7-15). McAuliffe discloses if the check leaves doubt about the fingerprint data

obtained, then recalculating fingerprint data from contents of the file and transmitting the

fingerprint data to a database in (col.8,lines 12-17). McAuliffe does not specifically disclose

obtaining fingerprint data from a file header associated with a file. Iwamura's patent discloses in

the verification process where fingerprint data or also known as hash value is embedded and

obtained from a header in (col.21,lines 41-53). It would have been obvious to person of ordinary

skill in the art at the time invention was made to embed or obtain fingerprint data from a file

header, as taught in Iwamura with data embedding method disclosed in McAuliffe because

when fingerprint data is embedded in a image/data, it distorts original data and error tends to

occur by fingerprint data. Therefore, embedding fingerprint data in a non-display field such as

header file is highly desirable. Further, by separating fingerprint data from original data,

fingerprint data is protected and well secured and allows for efficient data transmission with

minimal interference. Claim 1 is rejected.

Claim 2:McAuliffe discloses accessing a database record corresponding to the

transmitted fingerprint data, to obtain associated information and returning at least some of

associated information to a computer device from which the fingerprint data was transmitted in

(col.9,lines 24-37). Claim 2 is rejected.

Claim 3: McAuliffe discloses file contents comprise audio in (col.2,lines 36-39).

Claim 3 is rejected.

Claim 4: McAuliffe does not specifically disclose checking a digital signature. Iwamura's

patent discloses checking a digital signature in (col.33,lines 45-49). It would have been obvious

to person of ordinary skill in the art at the time invention was made to employ a digital signature,

as taught in Iwamura with fingerprint checking disclosed in McAuliffe in order to assure the data

recipient that the original source is authentic and legitimate which allows secure and reliable

way to authenticate its documents and its source. Further,digital signature protects against

repeated usage,forged document and repudiation. Claim 4 is rejected.

Claim 5: McAuliffe checking includes decrypting fingerprint data and authenticating the

decrypted data in (col.7,lines 15-25). Claim 5 is rejected.

Claims 6,7: Neither McAuliffe or Iwamura specifically discloses applying an inverse

modification to the fingerprint in the header prior to decrypting. Official notice is taken that

applying an inverse modification to the fingerprint in the header prior to decrypting is well known

in the art. One of ordinary skill in the art would have been motivated to employ inverse

modification or also known as Modified Discrete Cosine Transform/inverse Modified Discrete

Cosine Transform in order to reduce computation steps to produce output data. Inverse

transformation allows less latency between the end of decoding and the start of the data output

operation therefore it enhances speed of data processing. Since, inverse modification is applied

prior to decrypting, it allows decryption process to run faster thus minimizing data error rate.

Claims 6,7 are rejected.

Claim 8: McAuliffe's patent teaches obtaining and checking the integrity of the data in (col.8,lines 7-15). McAuliffe discloses if the check leaves doubt about the data obtained, then recalculating fingerprint data from contents of the file and transmitting the data to a database in (col.8,lines 12-17). McAuliffe does not specifically disclose watermark data. Iwamura patent teaches watermark data in (fig.1,2). It would have been obvious to person of ordinary skill in the art at the time invention was made to use watermark data, as taught in Iwamura with data embedding method disclosed in McAuliffe because watermark data is preserved if the data is manipulated by processes such as compression or cropping. One of ordinary skill in the art would have been motivated to use watermark because watermark data is hardly visible and/or audible, it is difficult for hackers to remove by unauthorized means yet it is easily detectable through an authorized or intended procedure. McAuliffe does not specifically disclose obtaining watermark data from a file header associated with a file. Iwamura's patent discloses in the verification process where data or hash value is embedded and obtained from a header in (col.21,lines 41-53). It would have been obvious to person of ordinary skill in the art at the time invention was made to embed or obtain data from a file header, as taught in Iwamura with data embedding method disclosed in McAuliffe because when data is embedded in a image/data, it distorts original data and error tends to occur by this event. Therefore, embedding watermark data in a non-display field such as header file is highly desirable. Further, by separating watermark data from original data, watermark data is protected and well secured and allows for efficient data transmission with minimal interference.

Claim 8 is rejected.

Claim 9: McAuliffe discloses accessing a database record corresponding to the transmitted data, to obtain associated information and returning at least some of associated information to a computer device from which the data was transmitted in (col.9,lines 24-37). McAuliffe does not specifically disclose watermark data. Iwamura patent teaches watermark data in (fig.1,2). It would have been obvious to person of ordinary skill in the art at the time invention was made to use watermark data, as taught in Iwamura with fingerprint data disclosed in McAuliffe because watermark data is preserved if the data is manipulated by processes such as compression or cropping. One of ordinary skill in the art would have been motivated to use watermark because watermark data is hardly visible and/or audible, it is difficult for hackers to remove by unauthorized means yet it is easily detectable through an authorized or intended procedure. Claim 9 is rejected.

Claim 10: McAuliffe discloses file contents comprise audio in (col.2,lines 36-39). Claim 10 is rejected.

Claim 11: McAuliffe does not specifically disclose checking a digital signature. Iwamura's patent discloses checking a digital signature in (col.33,lines 45-49). It would have been obvious to person of ordinary skill in the art at the time invention was made to employ a digital signature, as taught in Iwamura with fingerprint checking disclosed in McAuliffe in order to assure the data recipient that the original source is authentic and legitimate which allows secure and reliable way to authenticate its documents and its source. Further,digital signature protects against repeated usage,forged document and repudiation. Claim 11 is rejected.

Claim 12: McAuliffe checking includes decrypting data and authenticating the decrypted data in (col.7,lines 15-25). McAuliffe does not specifically disclose watermark data. Iwamura patent teaches watermark data in (fig.1,2). It would have been obvious to person of ordinary skill in the art at the time invention was made to use watermark data, as taught in Iwamura with

fingerprint data disclosed in McAuliffe because watermark data is preserved if the data is manipulated by processes such as compression or cropping. One of ordinary skill in the art would have been motivated to use watermark because watermark data is hardly visible and/or audible, it is difficult for hackers to remove by unauthorized means yet it is easily detectable through an authorized or intended procedure. Claim 12 is rejected.

Claim 13,14: Netiher McAuliffe or Iwamura specifically discloses applying an inverse modification to the data in the header prior to decrypting. Official notice is taken that applying an inverse modification to the fingerprint in the header prior to decrypting is well known in the art. One of ordinary skill in the art would have been motivated to employ inverse modification or also known as Modified Discrete Cosine Transform/inverse Modified Discrete Cosine Transform in order to reduce computation steps to produce output data. Inverse transformation allows less latency between the end of decoding and the start of the data output operation therefore it enhances speed of data processing. Since, inverse modification is applied prior to decrypting, it allows decryption process to run faster thus minimizing minimizing data error rate. Motivation to use watermark data discussed in claim rejection 10 above. Claims 13,14 are rejected.

Conclusion

2.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

      a. Ginter et al.(US 5,982,891) discloses inserting fingerprint data in a header.

      b. Kosugi et al.(US 5,995,751) discloses inverse modification method.

3.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hosuk Song whose telephone number is 703-305-0042. The examiner can normally be reached on Tue-Fri from 5:30 am- 4:00 pm.

    If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for the

organization where this application or proceeding is assigned is 703-305-0040.

    Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-3900.

/HS